REMARKS

Claims 35-43 are pending in the application. Claims 1-34 were previously canceled. Claims 35, 36, 38, 39, 41 and 42 were amended by way of the present amendment.

In the outstanding Office Action, claims 35-43 were rejected under 35 U.S.C. §103(a) as unpatentable over Perkins (U.S. Patent No. 3,568,909) in view of Fa et al. (U.S. Patent No. 5,785,228).

35 U.S.C. §103 Rejections

Claims 35 to 43 were rejected under 35 U.S.C. 103(a) as being unpatentable over Perkins in view of Fa et al. Applicants respectfully traverse the rejection.

Claims 35, 36, 38, 39, 41 and 42 were amended to clarify the invention. In particular, claim 35 was amended to recite:

> combined grooves and ridges formed on a second surface formed on another one of said valve piston and said plunger, said grooves and ridges being alternately arranged along a circumferential direction of the other one of said valve piston and said plunger, said second surface opposing to said first surface,
>
> wherein said ridges hold said seal member and prevent said seal member from being pulled off from the first surface formed on said one of said valve piston and said plunger and at the same time said grooves cooperatively define an air passage between said valve piston and said plunger.

Claims 38 and 41 have been similarly amended. Support for the amendments is provided at least at lines 20-27 of page 19; lines 20-27 of page 20, and lines 20-28 of page 21; and shown at least in Fig. 4, Fig. 7 and Fig. 15, of the specification. Therefore, the amendments raise no question of new matter.

Perkins discloses a fastener driving machine with a cylinder and a moveable piston.[1] In particular, Perkins discloses a fastener driving machine 11 that includes an outer casing 12

[1] Perkins at ABSTRAC.

containing a cylinder **13** that further contains a piston **14** that is reciprocatingly movable.[2] In addition, Perkins discloses that piston **14** is sealed within the cylinder **13** by means of O-rings **37** and that a pressure air chamber **39** is provided within outer casing **12**.[3]

However, Perkins nowhere discloses, as recited in claim 35, and similarly in claims 38 and 41:

> *combined grooves and ridges formed on a second surface formed on the other one of said valve piston and said plunger, said grooves and ridges being alternately arranged along a circumferential direction of the other one of said valve piston and said plunger*, said second surface opposing to said first surface, wherein *said ridges hold said seal member and prevent said seal member from being pulled off from the first surface formed on said one of said valve piston and said plunger* and at the same time said grooves cooperatively define an air passage between said valve piston and said plunger (emphasis added).

Thus, it is respectfully submitted that Perkins alone clearly does not disclose the claimed invention. In fact, the outstanding Office Action acknowledges the deficiencies of Perkins and attempts to overcome those deficiencies with Fa et al. However, Fa et al. can not overcome the deficiencies of Perkins, as will be discussed below.

Fa et al. discloses a dual mode pneumatically driven fastener driving tool that utilizes a resettable valve trigger apparatus, a work contact element and a mode selecting trigger blocking pin.[4] In particular, Fa et al. discloses a pneumatic tool 1 equipped with a trigger valve apparatus **9** which includes a plunger **18**, an extensible stem or core **18**, a reciprocating shuttle **34**, an upper valve body **30**, a lower valve body **31**, and O-ring seals **51-53, 56, 57** that are located in grooves on the reciprocating shuttle **34**.

In addition, Fa et al. discloses grooves and ridges formed on a surface of the plunger **18** that are alternately arranged along an axial direction of the plunger **18**.[5] Further, Fa et al.

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[2] *Id.* at column 1, line 71; to column 2, line 5.
[3] *Id.* at column 2, lines 27-37.
[4] Fa et al. at ABSTRACT.
[5] *Id.* at Fig. 7.

discloses seals **51**, **52** and **53** arranged on the outer surface of a valve piston **34**, and seals **56** and **57** are arranged on the grooves so as to be placed between the ridges.

However, Fa et al. nowhere discloses, as recited in claim 35, and similarly in claims 38 and 41:

> wherein *said ridges hold said seal member and prevent said seal member from being pulled off from the first surface formed on said one of said valve piston and said plunger* and at the same time said grooves cooperatively define an air passage between said valve piston and said plunger (emphasis added).

That is, in contrast to the claimed invention, Fa et al. discloses seals **51-53** that are arranged on the outer surface of the valve piston **34**. However, the seals **51-53**, as disclosed by Fa et al., do *not* contact the plunger **18** contacting with the inner surface of the valve piston **34**. Thus, the ridges formed on the plunger **18**, as disclosed in Fa et al., *cannot* hold the seals **51-53** and *cannot* "prevent said seals from being pulled off from the first surface formed on said one of said valve piston and said plunger," as recited in claims 35, 38 and 41.

Further, Fa et al. discloses grooves and ridges that are alternately arranged along the axial direction of the plunger **18**. However, the ridges disclosed by Fa et al. prevent an air passage from being formed between the plunger **18** and the valve piston **34**. That is, the grooves and ridges, as disclosed by Fa et al., *cannot* "cooperatively define an air passage between said valve piston and said plunger," as recited in claims 35, 38 and 41.

Furthermore, Fa et al. discloses seals **56**, **57** arranged on the grooves, wherein the seals **56**, **57** prevent air from passing through a space between the plunger **18** and the valve piston **34**. Thus, the grooves disclosed by Fa et al. *cannot* "cooperatively define an air passage between said valve piston and said plunger," as recited in claims 35, 38 and 41.

Thus, Fa et al. nowhere discloses ridges that cooperatively hold the side surface of the O-ring **52** and *at the same time* grooves that cooperatively define an air passage, as recited in the claimed invention. Thus, for this reason and the reasons discussed above, Fa et al. cannot overcome the deficiencies of Perkins.

Therefore, it is respectfully submitted that neither Perkins nor Fa et al., whether taken individually or in combination, do not disclose, suggest or make obvious the claimed invention and that claims 35, 38 and 41, and claims dependent thereon, patentably distinguish thereover.

Conclusions

In view of the above, reconsideration and allowance are, therefore, respectfully solicited.

In the event the Examiner believes an interview might serve to advance the prosecution of this application in any way, the undersigned attorney is available at the telephone number noted below.

Applicant believes no fees are due with this request. However, the Director is hereby authorized to charge any fees, or credit any overpayment, associated with this communication, including any extension fees, to Deposit Account No. 22-0185.

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Respectfully submitted,

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